

THE KALMAR DCF80-100
THE RESULT OF A TECHNICAL EVOLUTION



ADVANTAGES

More than 10 % faster average lifting speed due to fully variable hydraulic system.

Improved response and control thanks to the distributed control of hydraulic functions.

Electronically controlled drive train offers >25 % peak torque and seamless gearshift.



A fully variable hydraulic system enables faster, more precise manoeuvres.

It's about speed

Profitable handling of empty containers is about moving as many units as possible in the shortest amount of time possible. But doing it safely and with precision.

The Kalmar DCF80-100 is part of Kalmar's F series, the technical platform that represents a major technical evolution in container handling. The platform includes a distributed, redundant system for controlling electrics and hydraulics. The result is smoother, faster manoeuvrability with minimum time delay from the controls.

Machines in the F series have a chassis made of high strength steel. This makes the chassis light but extremely resistant to turning forces. The low weight also minimises tyre wear and fuel consumption.

The DCF80-100 comes as standard with either a 7-litre Volvo engine with 180 kW/246 hp or a Cummins engine with 164 kW/209 hp. The gearbox is a three-speed Dana-Spicer automatic with seamless gearshift. The drive line is controlled electronically. The result is more than 25 % better torque and faster acceleration, leading to faster manoeuvrability and higher productivity.

For load handling there are two different attachments. The twistlock attachment has a new system for levelling. The mobility is now enabled in the main attachment rather than at the twistlock. This makes for faster container engagement, as well as increasing the overall reliability of the solution.

The hook attachment, making it possible to lift two containers at a time, has been improved. Working lights, alignment sensors and control lamps have been improved, thus making monitoring easier, which considerably raises productivity.



Powerful engines with plenty of torque provides quick acceleration. Volvo engine, torque; 1100 Nm. Cummins engine, torque; 949 Nm.



The DCF80100 is easily recognisable by its elegant, sleekly rounded bonnet.



ADVANTAGES

Improved reliability through fewer hoses over the mast

Environmental quality: Complies with Step III and Tier 3

Higher energy efficiency

It's about quality

The DCF80-100 is a quality machine, optimised for empty container handling. The components are familiar and are often found in other Kalmar machines as well. In fact no other machine is equally well-known. Service engineers find it easy to work on different Kalmar models. Operators too will immediately feel at home with the controls.

The mast and other critical components have been developed, optimised and simulated on computers. This means that even on the drawing board we could predict the kinds of strain the machine would have to cope with during its tough working life. And once produced they have been tested in their real environment, so you can rest assured they can withstand extreme use.



The DCF80-100 has considerably fewer hoses over the mast compared to conventional machines (2 hydraulic hoses and 1 electrical cable). This provides greatly improved functional reliability.



The new engines provide higher torque and complies with EU Step III and Tier 3. Stricter emission requirements are yet another factor in reducing environmental impact.

The CAN-bus system increases functional reliability by 50 %. In fact the system reduces cable drawing by around 30%. This not only means fewer fault sources, but also vastly improved diagnostics. The system alerts the operator to any faults before they lead to a serious breakdown. The diagnostic data makes it easier to take the right corrective measures, thus reducing downtime and raising productivity.

The machine can also be connected to RMI, Remote Machine Interface, whereby its status can be monitored in real time from the office.

The fully automatic gearbox with seamless gearshift not only makes for smooth operation, but also reduces wear on other components in the drive line. The brakes are of proven and tested wet disc type.

ADVANTAGES

Increased sensitivity and control of hydraulic functions thanks to distributed hydraulic and electronic systems.

Better visibility in dark conditions due to improved working lights.

F-generation cabin and new suspension offers a new level in driver efficiency.



The joystick and accelerator are examples of electronically operated controls that enable precise manoeuvring.





The Spirit Delta cab has an electronically controlled heating system (ECH) as standard. A climate system (ECC) is also available as an option.



The levelling of the twistlock attachment is now enabled in the main attachment rather than at the twistlock. The construction is now far simpler and offers increased reliability.

It's about safety

A skilled driver becomes one with his machine. He or she learns to manoeuvre it down to the nearest millimetre. Total familiarity with a machine means high productivity. But fundamentally, it's also a matter of safety for personnel, machine and goods alike.

The F series, of which the DCF80-100 is a part, has a distributed system for manoeuvring electrical and hydraulic functions. For the operator, this means that the machine swiftly reacts to each movement of the controls. Both the machine and the attachment can be positioned exactly where the driver wants – quickly and on the first attempt.

From the large display field on the instrument panel, readily visible in the field of vision, the operator can immediately see if anything needs correcting. The control lamps are located where the driver directs his or her vision during each stage of the operation. The driver has the relevant information presented only when it is needed.

The F-generation cabin offers excellent driver comfort. Moreover, operators familiar with one Kalmar machine will find it easy to

work with other Kalmar models. Being fully familiar with the controls and the layout is a question of increased safety.

There are generous glass surfaces, and the mast and attachment have been designed not to block the operator's field of vision. The result is excellent all-round visibility. The well-placed working lights allow excellent visibility in dark conditions. All of which contributes to high safety and improved productivity.

ADVANTAGES

Six extra days of uptime per year^{*)}

Faster diagnostics

Increased Profitability of Ownership

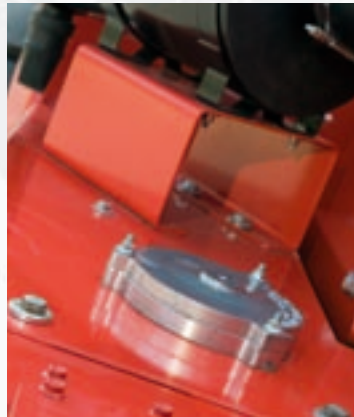


The bottom mast attachments consist of composite bushings. They are completely maintenance-free and have a very long life.



The CAN-bus system increases functional dependability and vastly improves diagnostics. It can also be connected to RMI.

- *) • Service intervals increased to 500 hours compared to the previous 250 hours.
- Improved service access and diagnostics thanks to the CAN-bus system.
- Simplified spreader design with central levelling makes servicing easier.
- Improved function security through fewer hoses over the mast.
- Improved hydraulic oil filtering system.
- Maintenance-free lower mast mounting.



The fine filter in the hydraulic system maintains the oil's performance longer and extends the life span.

It's about TCO

It is very important that your machines are operational and productive as much of the time as possible. Without unexpected stoppages. And with minimum downtime for preventive maintenance. It's a question of assuring low Total Cost of Ownership, or TCO. Only then can good profitability be achieved.

So what is TCO about?

Favourable financing for the machine.

Kalmar offers a wide range of options so you can choose what's best for you, whether buying the machine outright, or selecting one of our lease packages so you can use your cash flow for something else.

High product quality and availability.

Both of these factors are crucial to the number of hours your machine is operational and productive. Kalmar is acclaimed worldwide both for high quality and little time spent in the workshop, two factors that contribute to a long life.

Long service intervals.

With the F series, Kalmar has doubled the distance between services. The time required for preventive maintenance has also decreased considerably. All this contributes to far higher productivity for you.

Low running costs.

A more efficient engine means low fuel costs. And effective filtering of the hydraulic oil means lower costs for oil changes. Efficient driving thanks to high manoeuvrability can also reduce consumption. All of which helps keep running costs down.

So, good profitability is about factoring in all the costs associated with owning or leasing a machine. And a Kalmar machine adds up to a Low Total Cost of Ownership – TCO.



It's about the Best Aftermarket in the Industry

YOU DO IT YOURSELF

Prefer to do your own service?

You deal with your own maintenance in your own workshop.

Our technical documentation, the most comprehensive in the world, is there to help you. If you need to consult our engineers, just give us a call or e-mail your query.

We deliver spare and replacement parts to you with the utmost precision. We have a servicing system, which is open round the clock, seven days a week.

have the right machine, in the right place, at the right time. You quite simply work out your price per lift, and can leave the rest to us with peace of mind.

Read more about our various servicing options at:

www.kalmarind.com/serviceconfigurator/

WE DO IT TOGETHER

You believe partnering is better?

We deal with maintenance together.

We make sure your machines receive the preventive maintenance, other care and upgrades we have agreed in advance. Choose a fixed price package and you always know in advance how much it will cost – to the penny or cent.

WE DO IT FOR YOU

Interested in pay-per-performance?

We deal with maintenance for you.

This is the ultimate convenient way for you to run your business. We make sure you always



Contact information:

KALMAR GLOBAL PARTNER

LOCAL PRESENCE

Kalmar is a global supplier of heavy materials handling equipment and services for ports, terminals, industry and intermodal handling.

Local presence means that we can support our customers throughout the product's life cycle, wherever they are located.

There are 17 Kalmar sales companies that support dealers and agents in more than 140 countries around the world.

Kalmar Industries

Product line – Empty Container Handlers
Torggatan 3 SE-340 10 Lidhult, Sweden
Tel: +46 372 260 10. Fax: +46 372 259 77.
www.kalmarind.com

Kalmar is part of Cargotec Corporation



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